WHAT IS CLAIMED IS:

1. A method comprising:

forming a column on a silicon substrate, the column having an atomically sharp tip;

depositing a membrane on the column;

removing a portion of the column after depositing the membrane; and

etching the membrane to form a nozzle end.

2. A device comprising:

a membrane formed by depositing a conformal layer of silicon nitride on a silicon post oriented perpendicular to a silicon substrate, the membrane having an orifice; and

a fluid reservoir in fluidic communication with the orifice.

3. The device of claim 2 further comprising a cell retention cavity.

4. A method comprising:

transferring a pattern of dots onto a silicon substrate;

oxidizing the substrate to form an atomically sharp silicon tip corresponding to each dot;

creating a shaft for each silicon tip;

forming a pedestal at the base of each shaft;

coating the silicon tips with a membrane material; and

removing a portion of the silicon from each tip.

5. The method of claim 4 further comprising forming an opening in each tip.